



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/669,860	09/24/2003	Shigeyasu Morihiro	08917-090001	4396
69713 7590 07/17/2007 OCCHIUTI ROHLICEK & TSAO, LLP 10 FAWCETT STREET CAMBRIDGE, MA 02138			EXAMINER SASTRI, SATYA B	
			ART UNIT 1713	PAPER NUMBER
			MAIL DATE 07/17/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/669,860

Applicant(s)

MORIHIRO ET AL.

Examiner

Satya B. Sastri

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to amendment filed on May 14, 2007. Claims 6-40 are now pending in the application.
2. Applicant's amendment and arguments have been fully considered but not found persuasive and thus, rejection of *claims 6-40* under 35 U.S.C. 103(a) as being unpatentable over Koger et al. (US 6,646,058 B1) is sustained.

Response to Arguments

3. Applicants' arguments have been fully considered but not found persuasive for the following reasons:

Instant invention discloses compositions comprising a thickener containing an emulsion polymer comprising 20-69% mole% of alkali soluble monomer and 0.001-2 mol% of an associating monomer. Per applicant's calculations on page 10 of the amendment filed on 5/14/07, the wt. % of the associating monomer amounts to 0.01-16.9% by wt. of the copolymer. The prior art discloses a dispersant latex comprising a dispersant polymer in an aqueous medium. The dispersant polymer is the reaction product of monomers comprising 20-70% by wt. of unsaturated carboxylic acid, a monoethylenically unsaturated monomer different from the carboxylic acid and 0.5-60 wt.% of a macromonomer comprising a hydrophobic portion and an alkoxyated portion (col. 5, lines 37-53, col. 6, lines 66-67; col. 7, lines 1-44). Thus, the thickener

Art Unit: 1713

as recited in instant claim 6 reads on the dispersant polymer of the prior art. The dispersant polymer is preferably used in amounts of 0.3 to about 3 wt.%, based on the solids of the waterborne paint composition. Instant claim 1 recites the thickener amounts to be 0.01 to 2 parts by wt. of composition and a solid mass of 60-85%, thus, the thickener amount may be expressed as 0.017 to 2.4% based on the solids.

The prior art teachings and the instant invention are summarized as follows:

	Prior art	Instant Invention
<i>1. Dispersant/thickener amount</i>	0.3-3%	0.017-2.4%
(based on solid mass of the composition)		
<i>2. Amount of macromonomer/ associative monomer (% mass of copolymer)</i>	0.5-60%	0.01-17%
<i>3. Alkali soluble monomer</i>	20-70%	20-69%
(% of copolymer)	(by mass)	(by mole)
<i>3. Solid content of the composition</i>	20-60%	60-85%

Given the overlapping ranges, the instant invention is deemed obvious over prior art disclosure.

As for the arguments on unexpected results of page 4, lines 5-21 and page 13, lines 6-19 alluded to by applicants, it is noted that there is no data to support the unexpected results to demonstrate the criticality of using 0.1-16.9% of the associating monomer in the thickener. Applicant's comparative example 1 includes a thickener that does not include an associating

Art Unit: 1713

monomer. Unexpected results may be demonstrated by comparing properties of the inventive compositions with those that have an associative monomer in amounts outside of the inventive range, i.e. in amounts up to 60% by wt. as taught by the prior art disclosure.

Action Is Final

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

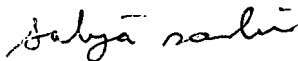
Future Correspondence

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Satya Sastri whose telephone number is 571-272-1112.

Art Unit: 1713

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 571-272-1114. The fax phone numbers for the organization where this application or proceeding is assigned is (571) 273-8300 for regular communications. The unofficial direct fax phone number to the Examiner's desk is 571-273-1112.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



SATYA SASTRI

July 9, 2007



DAVID W. WU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700